Amendments to the Claims

Listing of the Claims

- 1. (Canceled)
- 2. (Canceled)
- 3. (Withdrawn) The nozzle tip of claim 1, wherein the junction is oriented at an angle from radial.
 - 4. (Canceled)
- 5. (Withdrawn) The nozzle tip of claim 1, wherein the first portion is a tip portion and the second portion is a cap.
- 6. (Withdrawn) The nozzle tip of claim 1, wherein the first portion is a retaining plate for a multi-probe nozzle tip, and the second portion is a seal ring.
- 7. (Withdrawn) An injection molding manifold bushing, comprising: a first portion, and a second portion fused to the first portion at a junction, the first and second portions being made of different materials.
- 8. (Withdrawn) An injection molding nozzle valve stem, comprising: a first portion, and a second portion fused to the first portion at a junction, the first and second portions being made of different materials.
- 9. (Withdrawn) The valve stem of claim 8, wherein the second portion is a tip end of the valve stem.
 - 10. (Withdrawn) An injection molding nozzle housing, comprising:

a body portion, and a flanged portion fused to the body portion at a junction, the body portion and flanged portions being made of different materials.

- 11. (Withdrawn) An injection molding nozzle tip insert comprising:
 a shank portion, and an end portion fused to the shank portion at a junction, the
 shank portion and end portions being made of different materials.
- 12. (Withdrawn) A method of making an injection molding nozzle tip component with a seal ring, comprising the steps of:

forming a first portion of the nozzle tip component from a first material; forming a seal ring from a second material;

aligning the seal ring to the first portion at a junction whereat a surface of the seal ring abuts a surface of the first portion; and

fusing the first portion and the seal ring together at the junction.

- 13. (Withdrawn) The method of claim 12, wherein the fusing is done by electron beam welding.
- 14. (Withdrawn) The method of claim 12, further comprising the step of machining the fused first and second portions to a final configuration which removes material adjacent the junction.
- 15. (Withdrawn) The method of claim 12, wherein the aligning is done by an alignment feature formed on the first and second portions.
- 16. (Withdrawn) The method of claim 15, wherein the alignment feature is a ridge formed in one of the portions and a recess formed in the other portion, the recess receiving the ridge to align the portions.

17. (Withdrawn) A method of forming an injection molding nozzle tip component, comprising the steps of:

forming a first blank for a first portion of the nozzle tip component; forming a second blank for a second portion of the nozzle tip component; abutting the second blank against the first blank at a junction; fusing the first blank and second blank at the junction; and machining the fused first and second blanks to a configuration for the first portion and second portion of the nozzle tip component.

- 18. (Withdrawn) The method of claim 17, wherein the fusing is done by electron beam welding.
- 19. (Withdrawn) The method of claim 18, wherein the first portion is a tip retainer and second portion is a seal ring.
 - 20. (Canceled)
- 21. (Withdrawn) The nozzle tip according to claim 1, wherein the first and second portions have a melt channel with an outlet aperture for communicating a molten material, and further including a valve stem that axially reciprocates in the melt channel.
- 22. (Withdrawn) The nozzle tip according to claim 21, wherein when the valve stem moves into the outlet aperture, the valve stem stops the flow of molten material therethrough.
- 23. (Withdrawn) The nozzle tip according to claim 22, wherein when the valve stem moves away from the outlet aperture, the molten material may pass therethrough.

- 24. (Canceled)
- 25. (Canceled)
- 26. (Canceled)
- 27. (Canceled)
- 28. (Canceled)
- 29. (Withdrawn) The nozzle tip according to claim 28, wherein the plurality of portions have a melt channel with an outlet aperture for communicating the molten material, and further including a valve stem that axially reciprocates in the melt channel of the nozzle housing, the melt channel of the tip retainer, and the outlet aperture.
- 30. (Withdrawn) The nozzle tip according to claim 29, wherein when the valve stem moves into the outlet aperture, the valve stem stops the flow of molten material therethrough.
- 31. (Withdrawn) The nozzle tip according to claim 29, wherein when the valve stem moves away from the outlet aperture, the molten material may pass therethrough.
- 32. (New) A method for manufacturing a nozzle tip for a hot runner system, the nozzle tip having a first portion and a second portion, the method comprising the acts of:

selecting a first material having a thermal conductivity for the first portion of the nozzle tip;

selecting a second material for the second portion having a thermal conductivity lower than the thermal conductivity for the first portion; permanently joining the first portion to the second portion; and thereafter, machining at least one of the first or second portions of the nozzle tip.

- 33. (New) The method for manufacturing a nozzle tip according to claim 32, wherein the act of permanently attaching is performed by electron beam welding.
- 34. (New) The method for manufacturing a nozzle tip according to claim 33, further comprising the act of providing an internal passageway through the first and second portions for molten plastic to pass therethrough.
- 35. (New) A method of manufacturing a hot runner nozzle tip component, comprising the acts of:

machining a first blank for a first portion of the nozzle tip component, wherein the first portion has an internal bore;

machining a second blank for a second portion of the nozzle tip component, wherein the second blank has an internal bore in fluid communication with the internal bore of the first portion;

abutting the second blank against the first blank at a junction; fusing the first blank and second blank at the junction; and thereafter, machining the fused first and second blanks to a configuration for the first portion and second portion of the nozzle tip component.

- 36. (New) The method of claim 35, wherein the fusing is performed by electron beam welding.
- 37. (New) The method of claim 36, wherein the first portion is a tip retainer and second portion is a seal ring.